

ABSTRACT

5 This invention relates to flowable devices and methods of utilizing such
flowable devices in wellbores to provide communicate between surface and
downhole instruments, among downhole devices, establish a communication
network in the wellbore, act as sensors, and act as power transfer devices. The
flowable devices are adapted to move with a fluid flowing in the wellbore. The
flowable device may be memory device or a device that can provide a measure of
a parameter of interest or act as a power transfer device. The flowable devices are
introduced into the flow of a fluid flowing in the wellbore. The fluid moves the device
10 in the wellbore. If the device is a data exchange device, it may be channeled in a
manner that enables a device in the wellbore to interact with the memory device,
which may include retrieving information from the flowable device and/or recording
information on the flowable device. The sensor in a flowable device can take a
variety of measurement(s) in the wellbore. The flowable devices return to the
15 surface with the returning fluid.

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